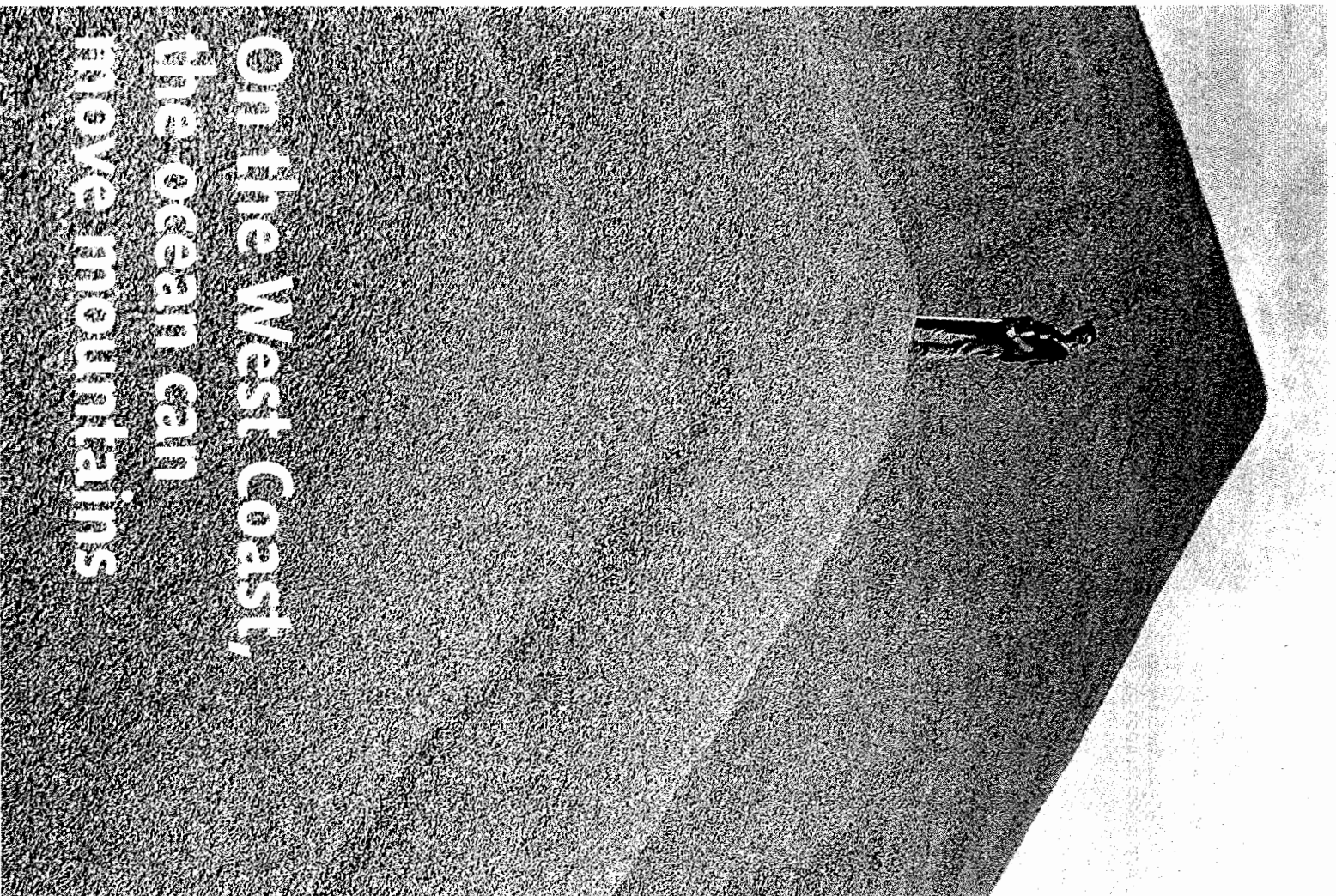


MINING » SELLING B.C. GRAVEL TO CALIFORNIA



B.C.'s Orca quarry can ship tonnes of gravel at a surprisingly low cost. LAURA LEVSHON/THE GLOBE AND MAIL

On the West Coast, the ocean can move mountains

BY WENDY STUECK PORT McNEILL, B.C.

Herb Wilson has a stock reply when he's asked how far **Polaris Minerals Corp.**'s Orca quarry is from California, the project's most important customer.

Twenty-five miles, he likes to say, a response that while a geographic whooper – the quarry, on northern Vancouver Island, is actually about 1,150 miles from San Francisco – works as a sales pitch.

"The cost of shipping for us is the same as shipping material 25 miles by truck on the highway. So don't worry about how far Vancouver Island is from San Francisco," Mr. Wilson, Polaris's chief operating officer said recently at the Orca site.

"It's all about the cost of shipping. And these large vessels are so efficient, that for us, it's like being 25 miles from

The NIMBY factor

Construction aggregate may play a role in almost every modern structure, from roads to high-rise towers, but that doesn't mean people welcome sand and gravel operations in their backyards.

In Sechelt, B.C., home to a large aggregate operation, many residents – including Canadian music icon Joni Mitchell of "paved paradise" fame – are fighting a proposal by Vancouver-based Pacific Aggregates Ltd. for another sand and gravel project.

Gravel projects are also ruffling feathers in B.C.'s Okanagan Val-

San Francisco."

The distance comparison is a key one for Polaris, a Vancouver-based company whose managers have mined for copper, nickel and gold but are currently staking out a dis-

trictly less glamorous commodity – construction aggregate – in the hopes of capitalizing on the growing seaborne trade of the humble, yet essential, material.

"We are a mini-California here – water is gold."

» Wendy Stueck

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West Coast demand for gravel growing rapidly

» Aggregate, the sand and gravel used to make concrete and asphalt, is a low-value, high-weight product.

Traditionally, that means the closer a quarry is to its target market, the more profitable the operation. If nearby sources don't exist or run out, prices go up – by about 15 cents (U.S.) a tonne for every mile material is hauled from the plant, according to a 2006 study by the California Geological Survey. (In the U.S., the average price of construction sand and gravel has climbed from about \$4 a tonne in 1992 to just more than \$6 a tonne last year.)

In California, the quarries close to San Francisco, Los Angeles and San Diego are being depleted and proposed new quarries frequently run into

stiff community opposition – forcing providers to ship material longer distances and driving up costs.

In the shipping world, meanwhile, bigger vessels equipped with automatic unloading systems have brought shipping costs down.

That's where the Orca quarry comes in. Chosen over sites in Alaska and Mexico for attributes that include plentiful water for processing, ocean access and high-quality aggregate, the quarry has been in production since February. Smack dab beside the highway that leads into nearby Port McNeill, B.C., and surrounded by forest, the operation is dominated by looming gravel pyramids. A conveyor belt runs two kilometres to an ocean-based unloading station where an operator uses joystick controls

to move the material into cavernous ship compartments.

The company has struck a long-term supply agreement with a San Francisco customer for 20 per cent of the Orca quarry's production and it is negotiating with other California buyers. Polaris is also getting bites from customers in the Lower Mainland, where an Olympics-related boom is generating strong demand.

Polaris is not the only company to twig to the potential of shipping aggregates down the U.S. coast. French firm Lafarge SA for decades has shipped crushed rock from its quarry on Texada Island, B.C., in the Strait of Georgia for use in California ports. Since 2001, Hanson PLC, a British building materials company, has been shipping aggregate from Sechelt, on the lower B.C. coast,

to California.

Coastal aggregate demand is expected to increase by 7 million tonnes a year by 2030, according to a 2004 study, more than twice the output of the Sechelt quarry. California will be the most important market, the B.C. study says, because "local reserves are being depleted and in-state coastal producers are being displaced by rising land values and difficulties in obtaining site approvals."

With demand rising, Polaris has moved to bring the quarry's neighbours onside. The Orca project lies in the traditional territory of the Namgis and Kwakiutl Indian bands. The Kwakiutl have struck a royalty deal with Polaris, while the Namgis have a 12-per-cent ownership stake. Over time, that stake is expected to

generate a steady income that will allow the band to invest in housing and business ventures, Namgis Chief Bill Cranmer says. "We saw it as an opportunity."

Currently, work options for the roughly 900 Namgis who live in Alert Bay, B.C., a short ferry ride from Port McNeill, are in short supply. Declining fishing stocks and changes to regulations have made many locals give up fishing altogether. To date, Alert Bay has resisted overtures from the aquaculture industry, fearing such operations could hurt wild salmon. Currently, about half of the quarry's employees are aboriginal.

Analysts have honed in on the quarry's growth and Polaris's cash-flow potential. Still moving into full production, the company reported a loss of

\$4.3-million on sales of \$49-million for the first quarter of 2007. Company projections, though, call for cash flow of \$3.4-million this year rising to \$46.6-million by 2014 from the Orca quarry. The company also has a second project in development.

Polaris has also struck a 10-year shipping agreement with CSL Group Inc., which runs a fleet of "self-unloading" Panamax-class vessels that are critical in keeping handling costs low. Shipments to San Francisco began this spring, a considerable relief to Mr. Wilson, who has overseen the \$100-million-and-counting spent to date on the Orca quarry and terminal.

"Ten years ago, if you would have told people this was the plan, they would have laughed you out of the room."